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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,764	08/01/2003	Yadunandan Dar	2042.VIN	5048

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EXAMINER

CHOI, LING SIU

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 02/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/632,764

Applicant(s)

DAR ET AL.

Examiner

Ling-Siu Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 15-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-14, drawn to a dispersion, classified in class 526, subclass 89.
 - II. Claims 15-26, drawn to a process to produce a polymer, classified in class 526, subclass 227.
 - III. Claims 27-28, drawn to a block copolymer, classified in class 526, subclass 348.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a materially different process such as a process to remove oxygen.

Inventions I and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions relates to a dispersion containing free radical and a block copolymer.

Inventions II and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as a process of anionic polymerization.

3. During a telephone conversation with Mr. Charles W. Almer on January 26, 2004, a provisional election was made with traverse to prosecute the invention of Group I, claim 1-14. Affirmation of this election must be made by applicant in replying to this Office action. Claims 15-28 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

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5. Claims 1-14 are objected to because of the following informalities: (a) claim 1, lines 1-2, "said polymer particles" is suggested to be changed to --said copolymer particles-- and (b) claim 1, line 4, "polymer precipitation" is suggested to be changed to --copolymer precipitation to form said copolymer particle--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

7. Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Dar et al. (US 2003/0149195 A1).

The present invention relates to

dispersion	copolymer particles	greater than 1 living radicals / particle
	dispersion medium	
wherein (a) the dispersion contains no chemical capping agents (b) organic solvent is not required to cause copolymer precipitation to form the copolymer particles		

(summary of claim 1)

Dare et al. disclose a dispersion comprising polymer particles dispersed in a dispersion medium, wherein each polymer particle contains greater than 2 living radicals which are not chemically protected or capped and has an average particle size of from 10 to 5,000 nanometers (claims 1 and 7). Thus, the present claims are anticipated by the disclosure of Dare et al..

Comment: The present claim is a product-by-process claim - the dispersion is prepared without the presence of an organic solvent which causes copolymer to precipitate to form the copolymer particle of which the dispersion comprises. The case law held that "the patentability of a product does not depend on its method of product. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Accordingly, the recitation "organic solvent is not required to cause polymer precipitation" will not be considered a limitation until the product of the present claims and the disclosure of Dar et al. are experimentally shown to be different.

8. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Caneba (US 5,173,551).

Caneba discloses a dispersion obtained by the steps of (1) forming an admixture of reactants including predetermined amounts of a monomer, a solvent, and a free-radical forming agent; (2) initiating a free-radical precipitation polymerization reaction to form a plurality of polymer radicals; (3) precipitating a polymer from the polymer radicals; (4) maintaining a polymer-rich phase of the admixture of reactants at a temperature above the lower critical

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solution temperature of the admixture, and (5) controlling the pressure and temperature of the admixture of reactants to control the rate of propagation of the polymer (claim 1). In view of step 5, the precipitation of the polymer radical in step 3 would possess at least one living radicals. Thus, the present claim is anticipated by the disclosure of Caneba..

9. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Matyjaszewski et al. (US 6, 121,371).

Matyjaszewski et al. disclose a copolymer emulsion obtained by polymerizing at least one polymerizable monomers in the presence of a system comprising (a) a suspending medium; (b) a monomer phase-suspended in the suspending medium; (c) a surfactant; (d) an initiator having one or more radically transferable atoms or groups; and (e) a catalyst system which is at least soluble in both monomer phase and in a polymer phase generated during the polymerization, wherein **the copolymer emulsion exhibits the characteristics of living polymerization** (abstract; claim 1). Thus, the present claim is anticipated by the disclosure of Matyjaszewski et al..

10. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Hoshino et al. (JP 04-002963 A).

Hoshino et al. disclose a magnesium particle comprising a stable radical compound and a fine particle (abstract). Thus, the present claim is anticipated by the disclosure of Hoshino et al..

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is (703)305-0887.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on (703)308-2450.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703)308-2351.

L. S. Choi

Ling -Siu Choi

February 8, 2004